

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lorin R. DeBonte et al.                      Art Unit : Unknown  
Serial No. : New Filing                                      Examiner : Unknown  
Filed : Herewith  
Title : CANOLA OIL FROM SEEDS WITH REDUCED GLUCOSINOLATES AND  
LINOLENIC ACID (AS AMENDED HEREIN)

Commissioner for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Prior to examination, please amend the application as follows:

**In the Title:**

Please replace the title with the following rewritten title:

--CANOLA OIL FROM SEEDS WITH REDUCED GLUCOSINOLATES AND  
LINOLENIC ACID--

**In the Specification:**

Please insert this paragraph at page 1, line 6 as follows:

**--CROSS-REFERENCE TO RELATED APPLICATIONS**

This application is a Continuation of application Serial No. 09/861,905, filed May 21, 2001, which is a Continuation of application Serial No. 08/850,279, filed May 5, 1997, now U.S. Patent No. 6,270,828 B1, which is a Divisional of application Serial No. 08/290,660, filed August 15, 1994, now U.S. Patent No. 5,750,827, which is a Continuation-in-Part of Serial

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December 27, 2001  
Date of Deposit

Signature

Vince Defante

Typed or Printed Name of Person Signing Certificate

No. 08/140,205, filed November 12, 1993, now abandoned, which is a Continuation of application Serial No. 07/767,748, filed September 30, 1991, now abandoned, which applications are incorporated herein by reference.--

At page 6, line 7, please insert the following:

--Brief Description of the Drawings

FIG. 1 shows the peroxide values from accelerating aging tests of lines IMC 01 and Alto.

FIG. 2 shows the *para*-anisidine values from accelerated aging tests of lines IMC 01 and Alto.

FIG. 3 shows the overall acceptance scores from accelerated aging tests for IMC 01 and Alto.

FIG. 4 shows the off-flavor intensity scores from accelerated aging tests for IMC 01 and Alto.

FIG. 5 shows a linear regression analysis of overall acceptance scores versus off-flavor intensity scores for IMC 01 and Alto.

FIG. 6 shows the peroxide values from accelerated aging tests for IMC 02 and Stellar.

FIG. 7 shows the *para*-anisidine values from accelerated aging tests for IMC 02 and Stellar.

FIG. 8 shows the overall acceptance scores from accelerated aging tests for IMC 02 and Stellar.

FIG. 9 shows the off-flavor intensity scores from accelerated aging tests for IMC 02 and Stellar.

FIG. 10 shows a linear regression analysis for overall acceptance scores versus off-flavor intensity scores for IMC 02 and Stellar.--

Please replace the paragraph beginning at page 19, line 11, with the following rewritten paragraph:

--Crosses have been made with IMC 01 as one parent to demonstrate that the superior IMC 01 quality/sensory traits are transferred along with the superior agronomic traits of another parent such as the Canadian canola line, Westar, into descendants. The parent to which IMC 01 is crossed is chosen on the basis of desirable characteristics such as yield, maturity, disease resistance, and standability. Conventional breeding techniques employed in such crossings are well known by those skilled in the art. Thus, a method of using the IMC 01 Brassica napus is to cross it with agronomically elite lines to produce plants yielding seeds having the characteristics listed above.--

Please replace the paragraph beginning at page 29, line 12, with the following rewritten paragraph:

--Total Polar Materials determined by AOCS method Cd 20-91, packed column method adapted to HPLC.--

Please replace the paragraph beginning at page 30, line 13, with the following rewritten paragraph:

--400 g of oil placed in 500 mL amber glass bottles (80 mm wide, 140 mm high, with a 42 mm opening), uncapped, held in 60°C (range 59 to 61°C) convection oven (Blue M, manufactured by Blue M Electric) for 3, 6, 9 and 12 days. One bottle of oil per day per type of oil was removed from the oven and analyzed for peroxide value, para-anisidine value and sensory characteristics.--

Please replace the paragraph beginning at page 31, line 12, with the following rewritten paragraph:

--Overall acceptability scores were significantly different after 0, 3, 6, 9, and 12 days ( $p=0.05$ ) (see Table XII and Figures 3 and 4).--

Please replace the paragraph beginning at page 34, line 1, with the following rewritten paragraph:

--Significantly lower overall acceptance scores and lower off-flavor intensities indicates IMC 02 has significantly better flavor stability than Stellar.--

**In the Claims:**

Cancel claims 1-19.

Please add new claims 20-55 as follows.

--20. A canola oil having an oleic acid content of about 66.3% to about 72.6% and an  $\alpha$ -linolenic acid content of less than about 7%.

21. The canola oil of claim 20, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 7%.

22. The canola oil of claim 21, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 3.0%.

23. The canola oil of claim 22, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

24. The canola oil of claim 21, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 4.1%.

25. The canola oil of claim 24, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

26. The canola oil of claim 20, wherein said oleic acid content is about 72.6%.

27. The canola oil of claim 26, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

28. The canola oil of claim 27, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

29. Oil produced from seed of *Brassica napus*, said oil having an oleic acid content of about 66.3% to about 72.6% and an  $\alpha$ -linolenic acid content of less than about 7%.

30. The canola oil of claim 29, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 7%.

31. The canola oil of claim 30, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 3.0%.

32. The canola oil of claim 31, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

33. The canola oil of claim 30, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 4.1%.

34. The canola oil of claim 33, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

35. The canola oil of claim 29, wherein said oleic acid content is about 72.6%.

36. The canola oil of claim 35, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

37. The canola oil of claim 36, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

38. A canola oil having an oleic acid content of about 66.3% to about 72.6% and an  $\alpha$ -linolenic acid content of less than about 7%, said oil produced from seed of progeny of a *Brassica napus* variety designated IMC 01, deposited as ATCC 40579.

39. The canola oil of claim 38, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 7%.

40. The canola oil of claim 39, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 3.0%.

41. The canola oil of claim 40, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

42. The canola oil of claim 39, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 4.1%.

43. The canola oil of claim 42, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

44. The canola oil of claim 38, wherein said oleic acid content is about 72.6%.

45. The canola oil of claim 44, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

46. The canola oil of claim 45, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

47. A canola oil having an  $\alpha$ -linolenic acid content of less than about 7%, said oil produced from seed of progeny of a *Brassica napus* variety designated IMC 01, deposited as ATCC 40579.

48. The canola oil of claim 47, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 7%.

49. The canola oil of claim 48, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 3.0%.

50. The canola oil of claim 49, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

51. The canola oil of claim 48, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 4.1%.

52. The canola oil of claim 51, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.

53. The canola oil of claim 47, wherein said oleic acid content is about 72.6%.

54. The canola oil of claim 53, wherein said  $\alpha$ -linolenic acid content is from about 1.7% to about 2.0%.

55. The canola oil of claim 54, wherein said  $\alpha$ -linolenic acid content is from about 1.9% to about 2.0%.--

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**REMARKS**

Claims 1-19 have been cancelled. New claims 20-55 are presented herewith. The specification has been amended to correct typographical errors. No new matter is added by these amendments. Applicants respectfully request consideration and allowance of claims 20-55.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

Enclosed is a check for \$1,112.00 for the filing fee and for excess claim fees. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date:

12/27/01



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Title:**

[A] CANOLA [VARIETY PRODUCING A] OIL FROM SEEDS WITH REDUCED GLUCOSINOLATES AND LINOLENIC ACID [YIELDING AN OIL WITH LOW SULFUR, IMPROVED SENSORY CHARACTERISTICS AND INCREASED OXIDATIVE STABILITY]

**In the Specification:**

Paragraph beginning at line 11, page 19 has been amended as follows:

Crosses have been made with IMC 01 as one parent to demonstrate that the superior IMC 01 quality/sensory traits are transferred along with the superior agronomic [traits] traits of another parent such as the Canadian canola line, Westar, into [descendents] descendants. The parent to which IMC 01 is crossed is chosen on the basis of desirable characteristics such as yield, maturity, disease resistance, and standability. Conventional breeding techniques employed in such crossings are well known by those skilled in the art. Thus, a method of using the IMC 01 Brassica napus is to cross it with agronomically elite lines to produce plants yielding seeds having the characteristics listed above.

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Paragraph beginning at line 13, page 30 has been amended as follows:

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manufactured by Blue M Electric) for 3, 6, 9 and 12 days. One bottle of oil per day per type of oil was removed from the oven and analyzed for peroxide value, *para*-anisidine value and sensory characteristics.

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Paragraph beginning at line 1, page 34 has been amended as follows:

Significantly lower overall acceptance scores and lower off-flavor intensities indicates IMC 02 has [significantly] significantly better flavor stability than Stellar.

**In the Claims:**

Claims 1-19 have been canceled.

Claims 20-55 have been added.

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